


**Meeting Minutes  
December 19, 2000  
Tri-Party Agreement Milestone Review**

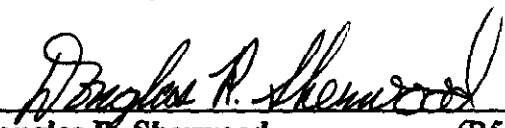
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Approval:   
**Michael A. Wilson** (B5-18)  
*Ecology IAMIT Representative*

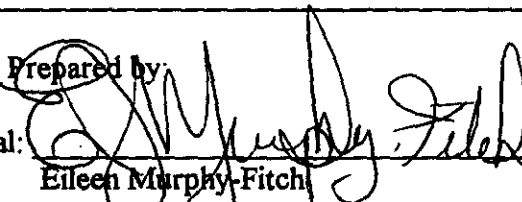
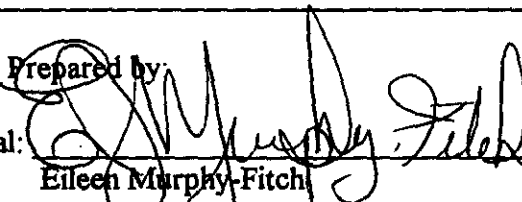
Date: 6/29/01

Approval:   
**W. Wade Ballard** (A5-12)  
*RL IAMIT Representative*

Date: 7/2/01

Approval:   
**Douglas R. Sherwood** (B5-01)  
*Chairperson  
EPA IAMIT Representative*

Date: 6/29/01

Minutes Prepared by:   
 Approval:   
**Eileen Murphy-Fitch** (A1-14)  
*Fluor Hanford, Inc.*

Date: 6/25/01

Ballard, W. W.	RL	A5-12	Morrison, R. D.	FH	A1-14*
Bilson, H. E.	RL	H0-12	Murphy-Fitch, E. J.	FH	A1-14*
Blazek, M.	ODOE*		Piippo, R. E.	FH	A1-14
Boston, H. L.	ORP	H6-60	Price, J.	Ecology	B5-18*
Clark, C. E.	RL	A5-15	Richards, J.	CTUIR	
Cummins, G.	FH	A1-14	Rodriguez, H. M.	RL/ORP	A5-15
Cusack, L.	Ecology	B5-18*	Sanders, G. H.	RL	H0-12
Dagan, E. B.	RL	A5-15	Sherwood, D. R.	EPA	B5-01*
Foley, B. L.	RL	H0-12	Skinnarland, E. R.	Ecology	B5-18
Girres, C.	FH	T3-01	Sobczyk, S.	NezPerce	
Goodenough, J.	DOE	H0-12	Stanley, R.	Ecology	Lacey*
Hales, J. E.	FH	A1-14	Walsh, J. L.	BHI	H0-11
Hedges, J.	Ecology	B5-18	Wilson, M. A.	Ecology	B5-18
Henry, G.	ODOE		Wintczak, T. M.	BHI	H0-09
Hertz, J. S.	FH	A1-14	Warren, R. N.	RL	H0-12
Iwatate, D. F.	FH	A1-14	Wisness, S. H.	RL	A5-58
Jim, R.	Yakama*		Yerxa, J. K.	RL	A5-15
LaRue, D. N.	BHI	H0-11	Administrative Record	EDMC	H6-08*
Logan, T. E.	BHI	H0-09			
Moy, S. K.	RL	H0-12			

\*w/Attachments

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## **Tri-Party Agreement Milestone Review**

### **December 19, 2000**

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#### **ENVIRONMENTAL RESTORATION PROJECT**

Through September 30, 2000, the Environmental Restoration (ER) Project has completed 242 Tri-Party Agreement Milestones; 53 milestones remain to be completed. In FY 2001, there are 14 Tri-Party Agreement Milestones scheduled for completion. Of these 14, 2 were completed ahead of schedule, 9 will be completed on or ahead of schedule, and 3 will not be completed as written and are considered unrecoverable. Proposals for the unrecoverable milestones will be developed and submitted as change packages.

#### **PROPOSED CHANGE REQUESTS:**

A Tri-Party Agreement Change Request is in process to review the schedule for some of the M-20 milestones. DOE proposed to focus cleanup activities on the highest risk operable units (OUs) and those OUs which are considered representative of the nine-major 200 Area waste groups. As a result, DOE will request that the closure plans for some of the treatment, storage and disposal (TSDs) units be deferred. A series of meetings between the agencies were proposed and will take place in January/ February 2001.

#### **M-13-00      COMPLETE RI/FS SUBMITTALS**

FY 2000 field characterization activities for 200-CW-1 Gable Mountain/B Pond Cooling Water Operable Unit were completed including the drilling of 12 test pits and one borehole. Draft A Work Plans for the 200-CW-5 (U-Pond/Z Ditches Cooling Water Waste Group), the 200-TW-1 (Scavenged Waste Group), and the 200-TW-2 (Tank Waste Group) were issued for regulatory review. Borehole drilling was completed at the 216-S Pond.

#### **M-15-00      RI/FS PROCESS COMPLETION**

The December 21, 1999, submittal of the 100 Area Burial Ground Focus Feasibility Study, Draft C, completes Tri-Party Agreement Milestone M-15-00A. Tri-Party Agreement Milestones M-15-23B and M-15-00B were completed with the submittal of the Draft A 300-FF-2 Focused Feasibility Study and Proposed Plan.

#### **M-16-00      COMPLETE REMEDIAL ACTIONS**

FY 2000 remediation work is complete for the 100 B/C, 100 D, 100 H Area and the 300-FF-1. Workscope was initiated early for 100-F and 100-N Areas. Contract was awarded for B/C pipeline remediation on November 28, 2000. Regulator approval was received in October to proceed with the remaining backfill operations at 100-DR. The interim cover was installed over the filled Environmental Restoration Disposal Facility (ERDF) cells 1 and 2.

#### **M-24-00      GROUNDWATER/VADOSE ZONE INTEGRATION PROJECT**

Technical and management reviews of the System Assessment Capability (SAC) were completed. Sixteen wells were installed, a 300-m x 300-m evaporation pond was constructed and 10 wells chemically injected, in support of the In Situ Redox Manipulation (ISRM) Project. Five Resource Conservation and Recovery

Act (RCRA) groundwater wells were installed on or ahead of schedule in support of Tri-Party Agreement Major Milestone M-24-00L.

Agreement was reached with EPA that the Partitioning Interwell Tracer Test (PITT) was too expensive for a speculative location of the test. The PITT test will be placed on hold while further conventional characterization is performed.

Planning activities for deepening wells as part of the dense-aqueous phase liquid (DNAPL) investigation began. All pump and treat systems operated at or above the planned 90 percent availability during the period.

#### **M-93-00      DISPOSITION OF SURPLUS REACTORS**

All planned FY 2000 demolition workscope (including valve pit, exhaust plenum, and all below-grade tunnels) was completed at the F and DR Reactors (excluding the F Reactor Fuel Storage Basin (FSB) and DR FSB stairwell). All FY 2000 scheduled surveillance and maintenance activities were completed on or ahead of schedule.

#### **ENVIRONMENTAL RESTORATION ISSUES:**

**TRI-PARTY AGREEMENT MILESTONE M-16-26B:** Tri-Party Agreement Milestone M-16-26B, Complete Remediation, Backfill, and Revegetation of 51 Liquid Waste Sites and Process Effluent Pipelines in the 100 B/C, DR and HR Operable Units, due February 28, 2001, will be missed due to prior year funding constraints. A draft Tri-Party Agreement Change Request was sent to EPA and Ecology on October 19, 2000 proposing a new milestone date be established after the subcontract then awarded and a schedule developed (January 31, 2001).

**TRI-PARTY AGREEMENT MILESTONE M-16-26C:** Tri-Party Agreement Milestone M-16-26C, Complete Remediation and Backfill of 10 Liquid Waste Sites and Process Effluent Pipelines in the 100-HR-1 Operable Unit, due May 31, 2001, will be missed due to the discovery of unanticipated, elevated arsenic levels found in early FY 2000 (which have since been resolved) and chromium sample analyses results above the remedial action goals encountered during confirmation sampling/verification activities. The impact of the elevated chromium results needs to be analyzed prior to the preparation of a Tri-Party Agreement Change Request.

**TRI-PARTY AGREEMENT MILESTONE M-16-03E:** Tri-Party Agreement Milestone M-16-03E, Complete Remediation of Waste Sites in 300-FF-1 OU (excluding the 618-4 Burial Ground), to include Excavation, Verification, and Backfilling, due September 30, 2001, will be missed due to the need for performing a Kd study on uranium leachability. The regrades will not be completed until study results confirm that no further excavations are required. A data quality objective was completed and a baseline change proposal prepared to secure funding for the study.

**200 AREA NON-TANK FARM RELATED OPERABLE UNITS (OU):** RL developed a more streamlined approach for the remediation of the 200 Area non-tank farm related OUs at the Hanford Site. The existing baseline for soil characterization in the 200 Area Remedial Action Project shows a completion of the characterization of 23 operable units by 2008. The new approach calls for completion of the characterization of 12 representative analogous waste site OUs by 2008. A Tri-Party Agreement Change Request has not been submitted formally proposing this change.

## **WASTE MANAGEMENT**

### **M-19-00 MIXED WASTE TREATMENT**

Tri-Party Agreement Major Milestone M-19-00, *Treat and/or Directly Dispose of at Least 246 cubic meters of contact handled-low-level mixed waste (CH-LLMW) by September 2000, 822 cubic meters by September 2001, and 1,644 by September 2002*, milestone was completed 2 years ahead of schedule on September 19, 2000. This milestone will no longer be reported on.

### **M-91-00 ACQUISITION OF FACILITIES TO TSD TRU/TRUM, LLMW AND GTC3**

There are two Tri-Party Agreement Milestones due in December. A Tri-Party Agreement Change Request for Tri-Party Agreement Milestone M-91-01, Commitment to establish a date for Completion Acquisition of TRU/TRUM Facilities, is in dispute resolution and should be resolved by January 23, 2001. The regulators were notified that Tri-Party Agreement Milestone M-91-12, Initiate Thermal Treatment of LLMW, is in jeopardy and a recover plan provided. Tri-Party Agreement Milestone M-91-07, Authorized the Initiation of the Solid Waste Burial Ground Interim Safety Basis, Continue Work on SARP, Supporting TRU Retrieval, and Complete Container Movements for the Containers Processed During FY 2000, due September 30, 2004, is also in jeopardy.

DOE is finalizing a proposed Waste Management Program Strategic Plan. The regulators have asked about the intent of the Plan, how will it impact (replace?) the Project Management Plans, primary documents, etc. DOE was requested to provide a brief discussion on this point at the January 23, 2001, IAMIT.

Ecology also pointed out that T Plant was not aware that they were being considered for inclusion in the M-91 activity. FH Environmental stated that discussions were initiated and workshops will begin in January 2001.

# ATTENDEES

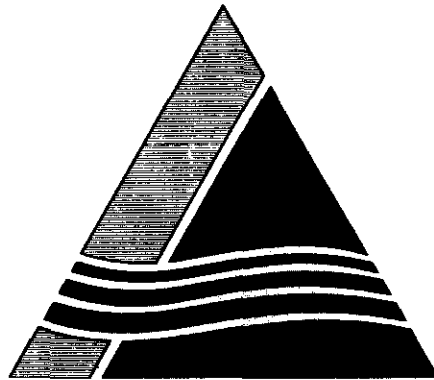
## Tri-Party Agreement Milestone Review December 19, 2000

<u>NAME</u>	<u>ORGANIZATION</u>	<u>MAILSTOP</u>	<u>ATTACHMENTS</u>
Deborah Twatate	FH/TPAI	A1-14	✓
Eileen Murphy-Fitch	"	"	
JOHN WALSH	BHI	H0-11	
DEENA LARUE	BHI	H0-11	
Tom Logan	BHI		
Tom Wintzrah	BHI		
Dennis Faulk	EPA		
Ron Gerton	DOE		
Don Roberts	DOG		
JANE HODGES	Ecology		
John Price	Ecology		
MIKE WILSON	Ecology		
Wade Ballard	DOE-RL		
Doug Sherwood	EPA		
Jim Goodenough	DOE-RL/ERD		
ROB PIIPPO	FH/TPA	A1-14	
Ellen Dagan	DOE-RL/RCA		
Russell Markon	DOE-RL/WMD		
Laura Cusack	Ecology		✓
Cindy Girres	FH		
Rick Bond	Ecology		

Richland Environmental Restoration Project

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# TPA Quarterly Review



*Tri-Party Agreement*

U.S. Department of Energy  
U.S. Environmental Protection Agency  
Washington State Department of Ecology

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**December 19, 2000**

# **ENVIRONMENTAL RESTORATION PROJECT**

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- Remedial Action and Waste Disposal Project
- Groundwater/Vadose Zone Integration Project
- Decommissioning Projects
- Surveillance/Maintenance and Transition Projects
- Program Management and Support – ERC

### **4. CURRENT ISSUES**

### **5. COST/SCHEDULE STATUS**

- FY00 Summary / FY01 Funding Overview
- TPA Schedule

**AGENDA**  
**TRI-PARTY AGREEMENT MAJOR MILESTONE MANAGEMENT REVIEW**  
**CHAIRPERSON: D. R. Sherwood**

**Tuesday, December 19, 2000**

**712 Swift Blvd., Suite 5, EPA Conference Room**

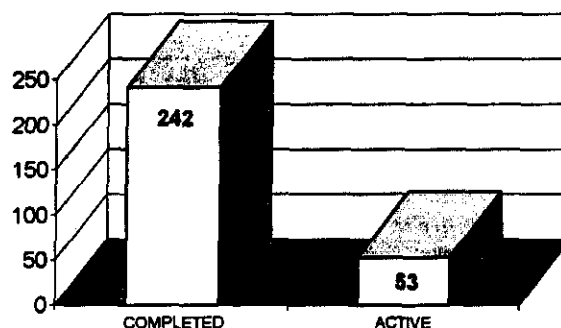
<u>TIME</u>	<u>MILESTONE</u>	<u>TITLE</u>	<u>RL DIVISION DIRECTOR</u>	<u>CONTRACTOR MANAGER</u>	<u>PRESENTER</u>
9:00 am	M-13-00	Complete RI/FS Submittals	R. E. Gerton	J. L. Walsh	R. E. Gerton
	M-15-00	RI/FS Process Completion	R. E. Gerton	J. L. Walsh	R. E. Gerton
	M-16-00	Complete Remedial Actions	R. E. Gerton	J. L. Walsh	R. E. Gerton
	M-24-00	RCRA Well Installation	R. E. Gerton	J. L. Walsh	R. E. Gerton
	M-93-00	Disposition of Surplus Reactors	R. E. Gerton	J. L. Walsh	R. E. Gerton
11:00 am	M-19-00	Mixed Waste Treatment	G. H. Sanders	E. S. Aromi	S. K. Moy
11:20 am	M-91-00	Acquisition of Facilities to TSD TRU/TRUM, LLMW and GTC3	G. H. Sanders	E. S. Aromi	R. N. Warren
12:00 noon	Adjourn				



# **COST/SCHEDULE STATUS**

# ENVIRONMENTAL RESTORATION PROJECT

## TPA Milestone Statistics Major & Interim (Excludes Target Milestones)

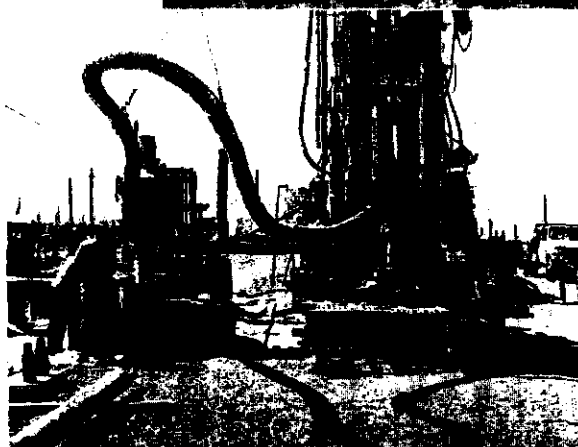


	Compliance Due Date	Total Active @ 11/00	Milestone Number	Compliance Due Date	Milestone Number	Compliance Due Date
<b>M-13-00</b> Submit Work Plans for RFI/CMS or RIFS Studies  (Groundwater/Vadose)	<b>12/31/2005</b> (M-13-00P)	<b>8</b>	M-13-25 M-13-00K M-13-26 M-13-00L M-13-00M M-13-00N	12/31/00 12/31/00 6/30/01 12/31/01 12/31/02 12/31/03	M-13-00O M-13-00P	12/31/04 12/31/05
<b>M-15-00</b> Site Investigations / Feasibility Studies  (Groundwater/Vadose)	<b>12/31/2008</b> (M-15-00)	<b>9</b>	M-15-38A M-15-40A M-15-40B M-15-39A M-15-39B M-15-40C	11/30/01 9/30/02 5/31/03 9/30/03 5/31/04 10/31/04	M-15-39C M-15-00C M-15-00	11/30/05 12/31/08 12/31/08
<b>M-16-00</b> Remedial Design / Remedial Action  (Remedial Action / Groundwater)	<b>9/30/2018</b> (M-16-00)	<b>15</b>	M-16-27A M-16-26B M-16-26C M-16-07B M-16-03E M-16-00F M-16-27B M-16-03A M-16-27C M-16-10A	12/31/00 2/28/01 5/31/01 7/31/01 9/30/01 12/31/01 12/31/01 6/30/02 9/30/02 8/1/03	M-16-13B M-16-00 M-16-01 M-16-03F M-16-00A M-16-00B	10/29/04 9/30/18 TBD TBD TBD TBD
<b>M-20-00</b> Submit Closure Plans for All RCRA TSD Units (Groundwater/Vadose)	(Shared with FH) <b>2/28/2004</b> (M-20-54)	<b>5</b>	M-20-39 M-20-33 M-20-52	2/28/03 10/31/03 12/31/03	M-20-53 M-20-54	12/31/03 2/28/04
<b>M-24-00</b> RCRA Groundwater Monitoring  (Groundwater/Vadose)	<b>12/31/2005</b> (M-24-00Q)	<b>10</b>	M-24-46 (C) M-24-47 M-24-48 M-24-00L M-24-49 M-24-50 M-24-00M M-24-00N	12/31/00 12/31/00 12/31/00 12/31/00 4/30/01 4/30/01 12/31/01 12/31/02	M-24-00O M-24-00P M-24-00Q	12/31/03 12/31/04 12/31/05
<b>M-70-00</b> ERDF Operational	<b>7/01/1996A</b> (M-70-00)	<b>0</b>				
<b>M-93-00</b> Reactors on River Final Disposition  (Decommissioning)	<b>TBD</b> (M-93-00)	<b>6</b>	M-93-12 M-93-14 M-93-10	2/28/02 6/30/03 7/31/03	M-93-11 M-93-15 M-93-00	9/30/03 12/31/03 TBD
<b>TOTAL ACTIVE MILESTONES</b>		<b>53</b>	<b>2</b>	<b>---</b>	<b>FY01 MILESTONES COMPLETED (C)</b>	

# FY 2000 TPA MILESTONE SUMMARY

(Excludes Target Milestones)

Five high-priority sites, in the 100 BC Area, where soil remediation has been completed.



Providing containment for drill cuttings from the 200 West Area RCRA monitoring wells.



Completion of ERDF cells #3 and #4.

Work Scope		Schedule		
Milestone Number	Milestone Description	Planned Actual (A)	Completed Ahead/On	Behind Schedule
M-16-23B	Submit 300-FF-2 Focus Feasibility Study (FFS) and Proposed Plan for Regulator Review	11-30-99 11-22-99 (A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
M-13-22	Submit U Pond / Z Ditches Cooling Water Group Work Plan	12-31-99 12-14-99 (A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
M-15-00A	Complete All Remaining 100 Area Operable Unit Pre-ROD Site Investigations Under Approved Work Plan Schedules	12-31-99 12-21-99 (A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
M-15-00B	Complete All Remaining 300 Area Operable Unit Pre-ROD Site Investigations Under Approved Work Plan Schedules	12-31-99 11-22-99 (A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
M-16-92B	ERDF Cells 3 and 4 Ready to Accept Remediation Waste	12-31-99 12-09-99 (A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
M-24-00K	Install RCRA Groundwater Monitoring Wells at the Rate of Up to 50 in CY99 if Required	02-29-00 02-17-00 (A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
M-24-41	Install Three (3) Additional RCRA Wells for the SST WMA S-SX	02-29-00 02-17-00 (A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
M-24-42	Install One (1) Replacement Well for the 216-S-10 Pond	02-29-00 02-17-00 (A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
M-24-43	Install One (1) Additional RCRA Well for the SST WMA TX-TY	02-29-00 02-17-00 (A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
M-24-44	Install One (1) RCRA Well for the 216-S-3 Pond	02-29-00 02-17-00 (A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
M-24-45	Install Two (2) Additional RCRA Wells for the SST WMA S-SX-SY	02-29-00 02-17-00 (A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
M-16-08B	Complete Remediation and Backfill of 19 Waste Sites in the 100-BC-1 and 100-BC-2 Operable Units	03-31-00 02-25-00 (A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
M-93-05 <sup>a</sup>	Issue B Reactor Phase II Feasibility Study Engineering Design Report for Public Comment	06-30-00 07-10-00 (A)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
M-13-23	Submit 200-TW-1 Work Plan	06-31-00 06-14-00 (A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
M-13-24	Submit 200-TW-2 Work Plan	06-31-00 06-14-00 (A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
M-16-13A	Initiate Remedial Action in the 100-FR-1 Operable Unit	09-29-00 07-10-00 (A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total FY00 TPA Milestones		16(A)	15	1
M-24-46 <sup>b</sup>	Install Two (2) Additional Wells at SST W-MA S-SX	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Completed		17	16	1

♦ Approved TPA Change Package M-16-99-02 (Rev 1) removed Milestone M-16-26C from FY00  
 ♦ Approved TPA Change Package M-16-00-01 removed Milestone M-16-07B from FY00  
 a) - BHI transmitted documents to RL on June 27; RL transmitted documents to EPA on July 10  
 b) - On 9/14/00, completed one FY01 TPA milestone that was due 12/31/00

# ENVIRONMENTAL RESTORATION PROJECT

## FY 2001 TPA MILESTONE SUMMARY (Excludes Target Milestones)

PBS	Milestone	Description	Compliance Date	Forecast/ Actual Date	Completed		Forecast			Unrecov erable	Deleted
					Ahead Schedule	On Schedule	Ahead Schedule	On Schedule	Behind Schedule		
ER02	M-13-00K	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan	12/31/2000	12/21/2000(F)			X				
ER02	M-13-25	Submit Uranium Rich Process Waste Group (200-PW-2) Work Plan	12/31/2000	12/21/2000(F)			X				
ER08	M-16-27A	Complete 100-HR-3 Phase I, ISRM Barrier Emplacement (Planning, Well Installation, and Barrier Emplacement)	12/31/2000	11/01/2000(A)	X						
ER08	M-24-46	Install Two Additional Wells at SST WMA S-SX	12/31/2000	09/14/2000(A)	X						
ER08	M-24-47	Install Four Additional Wells at SST WMA T	12/31/2000	12/14/2000(F)			X				
ER08	M-24-48	Install Four Additional Wells at SST WMA TX-TY	12/31/2000	12/31/2000(F)				X			
ER08	M-24-00L	Install RCRA Groundwater Monitoring Wells at Rate of up to 50 in CY00 if Required	12/31/2000	12/31/2000(F)				X			
ER10	C-10-08	Issue Hanford Site Waste Management Unit Report	01/31/2001		(TPA commitment milestone not counted in total count)						
ER01	M-16-26B	Complete Remediation, Backfill and Revegetation of 51 Liquid Waste Sites and Process Effluent Pipelines in the 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, and 100-HR-1 Operable Units as Defined in Remedial Design Report/Remedial Action Work Plan for the 100 Area	02/28/2001	02/25/2005(F)						X	
ER08	M-24-49	Install Four Additional Wells at SST WMA S-SX	04/30/2001	02/13/2001(F)			X				
ER08	M-24-50	Install One Additional Well at SST WMA TX-TY	04/30/2001	01/05/2001(F)			X				
ER01	M-16-26C	Complete Remediation and Backfill of 10 Liquid Waste Sites and Process Effluent Pipelines in the 100-HR-1 Operable Unit as Defined in Remedial Design Report/Remedial Action Work Plan for the 100 Area	05/31/2001	09/28/2001(F)						X	
ER02	M-13-26	Submit Plutonium/Organic-Rich Process Waste Group (200-PW-1) Work Plan	06/30/2001					X			
ER01	M-16-07B	Complete Remediation and Backfill of 22 Liquid Waste Sites and Process Effluent Pipelines in the 100-DR-1 and 100-DR-2 Operable Units as Defined in Remedial Design Report/Remedial Action Work Plan for the 100 Area	07/31/2001	02/14/2001(F)			X				
ER03	M-16-03E	Complete Remediation of Waste Sites in 300-FF-1 Operable Unit (excluding 618-4 Burial Ground), to include Excavation, Verification, and Backfilling	09/30/2001	09/30/2002(F)						X	
TOTAL FY 2001 TPA Milestones			14		2	0	6	3	0	3	0

## ENVIRONMENTAL RESTORATION PROJECT

### *Proposed TPA Change Requests*

M-15-00-04  
200-TW-1 OU  
Assessments  
Proposed

This change request proposes adding three interim milestones to implement additional activities for the 200-TW-1 Operable Unit Remedial Investigation/Feasibility Study process:

M-15-41A (09/30/01) - Complete 200-TW-1 OU Field Work Through Drilling and Sample Collection

M-15-41B (10/30/02) - Submit 200-TW-1 OU Draft A Remedial Investigation Report to EPA

M-15-41C (11/30/03) - Submit 200-TW-1 OU Draft A Feasibility Study and Draft A Proposed Plan to EPA

M-15-00-05  
200-TW-2 OU  
Assessments  
Proposed

This change request proposes adding three interim milestones to implement additional activities for the 200-TW-2 Operable Unit Remedial Investigation/Feasibility Study process:

M-15-42A (09/30/01) - Complete 200-TW-2 OU Field Work Through Drilling and Sample Collection

M-15-42B (09/30/02) - Submit 200-TW-2 OU Draft A Remedial Investigation Report to Ecology

M-15-42C (11/30/03) - Submit 200-TW-2 OU Draft A Feasibility Study and Draft A Proposed Plan/Proposed Permit Modification to Ecology

M-15-00-06  
200-PW-2 OU  
Assessments  
Proposed

This change request proposes adding three interim milestones to implement additional activities for the 200-PW-2 Operable Unit Remedial Investigation/Feasibility Study process:

M-15-43A (09/30/02) - Complete 200-PW-2 OU Field Work Through Sample Collection and Analysis

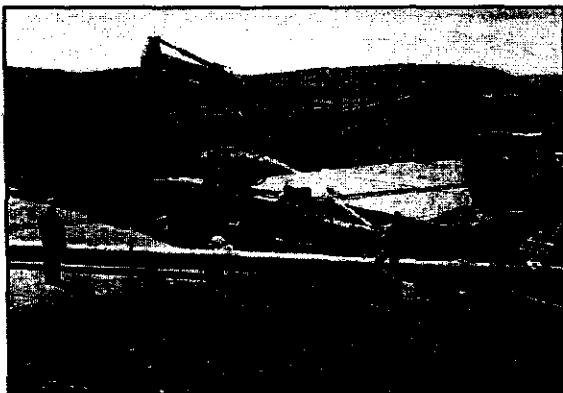
M-15-43B (06/30/03) - Submit 200-PW-2 OU Draft A Remedial Investigation Report to Ecology

M-15-43C (12/31/04) - Submit 200-PW-2 OU Draft A Feasibility Study/Closure Plan and Draft A Proposed Plan/Permit Modification to Ecology

# STATUS BY PROJECT

# REMEDIAL ACTION & WASTE DISPOSAL PROJECT

## Major Accomplishments



Dust suppression and size reduction of the concrete panels in the 100 N Area.

### 100 Area Remedial Action

#### 100 BC

- ◆ Completed remediation and backfill of B/C contaminated liquid waste sites (Tri-Party Agreement Milestone M-16-08B), including Group 1 (River Sites) and Group 3 (Small Sites).
- ◆ Backfill completed (12 waste sites).
- ◆ Re-seeded five waste sites with native grass seed.
- ◆ Prepared a procurement package and received bids for BC pipeline work.
- ◆ Awarded contract for B/C pipeline remediation on November 28.

#### 100 DR

- ◆ Completed 20 waste sites.
- ◆ Backfilled 12 waste sites.
- ◆ Completed 100 DR pipelines remediation.
- ◆ Excavated 98,981 tons (55K tons higher than original baseline).
- ◆ Received regulator approval in October to proceed with remaining backfill operations.

#### 100 HR

- ◆ Completed 11 waste sites.
- ◆ Excavated 277,252 tons (138K tons higher than the original baseline).

#### 100 FR

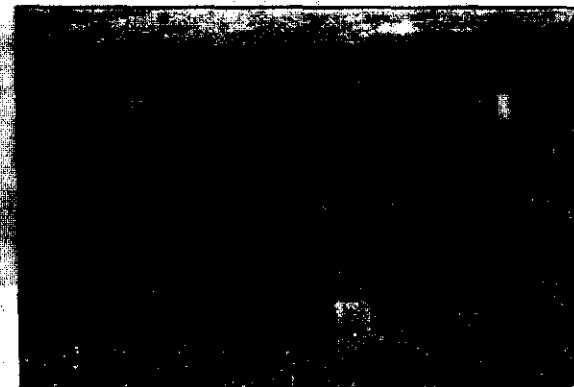
- ◆ Remedial actions at 100 FR were initiated in July, completing Tri-Party Agreement Milestone M-16-13A.
- ◆ 64,016 tons of waste were excavated.
- ◆ A geo-probe was deployed with a sodium iodine detector for in situ characterization at the 126-F-1 Ash Pit, resulting in a potential 50% reduction of waste. This project used EM-70 return-on-investment funds to deploy this technology.

#### 100 NR

- ◆ Remedial design was completed for the 116-N-1 crib/trench and associated piping. This includes preparation of specifications/drawings, development of nuclear safety basis documents, and drafting of the 100-N Sampling and Analysis Plan and Remedial Design Report/Remedial Action Work Plan.
- ◆ Procurement and award of the remedial action subcontract was completed in April.
- ◆ Remedial actions at 100 NR were initiated in July at 116-N-3, meeting the requirements of the Hanford Site RCRA permit.
- ◆ 24,226 tons of waste were excavated.

#### 100 Area Burial Grounds

- ◆ Draft C of the Focused Feasibility Study was submitted on December 21, meeting Tri-Party Agreement Milestone M-15-00A.
- ◆ Completed Rev. 1 of the Proposed Plan and Focused Feasibility Study.
- ◆ Completed the 100 Area Burial Ground Record of Decision.



This photograph shows pipes and other debris from overburden removal activities at the 1907-H pumphouse. The debris has been stacked on top of the pumphouse structure.



Removal of the concrete encasement at 100-H-21.

### 300 Area Remedial Action

#### 300-FF-1

- ◆ Excavated 152,853 tons of waste.
- ◆ Completed 11 waste sites (two waste sites were landfills.)
- ◆ Prepared a Request for Proposal and received bids for waste treatment services addressing depleted uranium drums at the 618-4 Burial Ground.
- ◆ Increased the overall baseline by 112,000 tons (for plumes).

## Remedial Action Project

- ## Waste Disposal Project

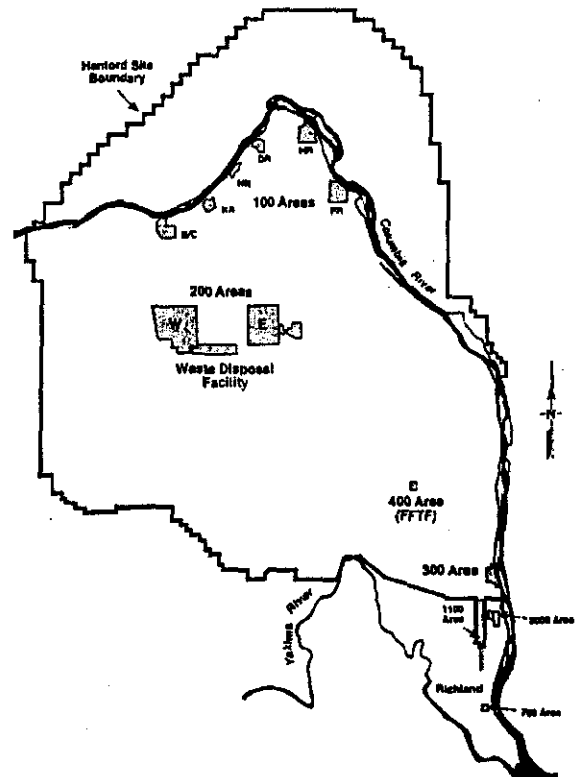
- ## Summary of Maintenance and Transition

- ## Decontamination & Decommissioning

- ## Program Management & Support

- **Program Management & Support**

Operate the pump and treat systems at the KR-1, 100-NF-2, 200-ZF-1 and 200-ZF-2 for performance monitoring and stream extraction. (all)  
Report all 200-ZF-1 and 200-ZF-2 activities.  
Continue ISRM activities at 100-NF-2 and install installation of 24 injection and 12 extraction wells.  
Perform passive monitoring and install the monitoring system at 200-ZF-2.  
Complete 200-ZF-1 feasibility study and install KR-2 and 200-ZF-2 RI/FS monitoring system at 200-ZF-2.  
Complete Phase I FA study in response to the ISRM TRIM DOO/SY monitoring system and continue GWAZ integration activities.  
Characterization of system  
System Assessment capabilities  
Science and Technology  
Management and Implementation



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# GROUNDWATER/VADOSE ZONE INTEGRATION PROJECT

- ♦ **200-ZP-1:** Approximately 300.3 million liters of groundwater were processed in FY00, with 1,177.9 kg of carbon tetrachloride removed. From inception to date, approximately 1.3 billion liters were processed, with 4,581.6 kg of carbon tetrachloride removed.

## Vapor Extraction

- ♦ The 200-ZP-2 soil vapor extraction system was placed off-line for FY00, in order to monitor and evaluate any rebounding of contaminants to static conditions. The data will be used to evaluate the effectiveness of remediation on contaminants within the vadose zone. The passive vapor extraction system (installed in selected vadose zone wells) is performing as designed.
- ♦ Planning activities necessary to deepen selected wells, as part of the dense non-aqueous phase liquid (DNAPL) investigation, began.
- ♦ *In November, it was agreed that the partitioning Interwell Tracer Test (PITT) was too expensive for a speculative location of the test. The PITT test will be placed on hold while further conventional characterization is performed.*

## 200 Area Remedial Action Project

- ♦ FY00 field characterization activities for the 200-CW-1 Gable Mountain/B Pond Cooling Water Operable Unit were completed, including drilling 12 test pits and 1 borehole.
- ♦ The Draft A work plans for the 200-CW-5 U Pond/Z Ditches Cooling Water Waste Group, 200-TW-1 Scavenged Waste Group, and 200-TW-2 Tank Waste Group were issued for regulator review, satisfying Tri-Party Agreement Milestones M-13-22, M-13-23, and M-13-24.
- ♦ Borehole drilling at the 216-S Pond was completed. This work was integrated with the RCRA Groundwater Monitoring Program for efficiency savings.

View of soil vapor extraction system calibration activities at 200-ZP-2.



Providing containment for drill cuttings from the 200 West Area RCRA monitoring wells.



A groundwater monitoring sampling well in the 200 West Area.



# DECOMMISSIONING PROJECTS

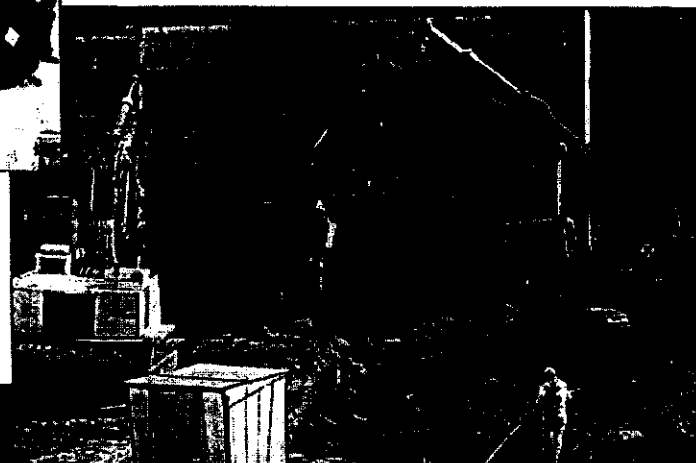
## Major Accomplishments

### Reactors ISS and Other D&D Projects

- ◆ All planned FY00 demolition scope (including valve pit, exhaust plenum, and all below-grade tunnels) was completed at the F and DR Reactors, excluding the F Reactor fuel storage basin (FSB) and DR FSB stairwells..
- ◆ A baseline change proposal (BCP) was approved to accelerate F Reactor FSB clean fill removal from FY03 to FY00. FY00 demolition of the FSB began in late September.
- ◆ A bid package was prepared for a Brokk excavator to assist with F Reactor FSB contaminated debris removal.
- ◆ Characterization of the top 5.2 m (17 ft) of fill in the F Reactor FSB was completed.
- ◆ Engineering for the removal of fill debris in the F Reactor FSB, along with agreements to handle any spent nuclear fuel found in the F and H Reactor FSBs, was completed.
- ◆ A subcontract was awarded in February for the F and DR Reactor safe storage enclosure pourback subcontract. The subcontractor completed 90% of the pourbacks required at the F and DR Reactors.
- ◆ All required D and H Reactor ISS engineering documents were issued for review. The ERC is awaiting approval of the H Reactor ASA (*approval received November 14*), as well as receipt of an action memorandum (*approval received October 17*) to complete the removal action work plan.
- ◆ The project closeout reports were completed for the 1999 demolition of the 119-DR Exhaust Air Filter Sampling Building, 116-D and 116-DR exhaust stacks, and the 108-F Biology Laboratory. Submittal of these reports constitutes formal completion of the demolition projects.
- ◆ A subcontract was awarded in February to proceed with the B Reactor Phase II Feasibility Study (per Tri-Party Agreement Milestone M-93-05). The study was completed in June 2000.



Valve pit pipe cutting at the DR Reactor.



The demolition of the below-grade tunnel area, on the north side of the DR Reactor.



Demolition of the transfer bay at F Reactor.

October 1, 2000

## Remedial Action Project

- Continue to build on our previous initiatives
- Initiate a case study on the current situation
- Complete a formal tender for a new management system
- Initiate a change management program
- Reassess the management system of the company
- Surrogate the change
- Issue a new management system
- Remove the management system of the company
- Two new management systems

## Project

- On the other hand, the *in vitro* results of the present study are in accordance with the results of the *in vivo* study of the same authors, which showed that the use of the 100% and 200% concentrations of the essential oil of *Salvia officinalis* L. in the diet of broiler chickens did not affect the growth rate, feed intake, feed conversion ratio, and carcass weight.

## Supplemental Information

- Complete the survey for the 2006-2007 period and submit to the 2007-2008 period
- Continue to work with the community on planning and implementation activities
- Continue to work with the community on surveillance and household survey, and on community maintenance
- Implement the community health mobilization action
- Repair the water supply system funded by facility
- Transition
- Continue to work with the community on surveillance and monitoring

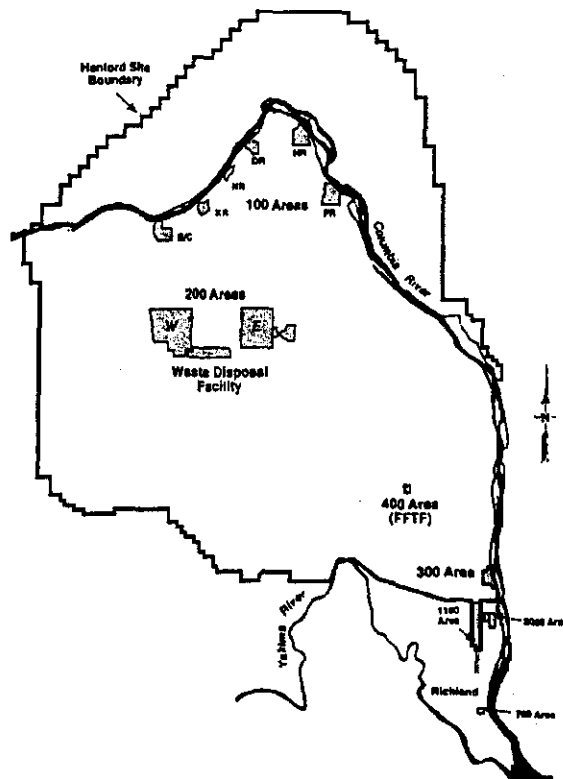
- Continue D&D of 233-S Pu Concentration Facility.
- Complete Historical Building Mitigation Report.
- Issue B Reactor S&M plan.
- Continue F Reactor ISS.
- Continue DR Reactor ISS.

## Product Information & Support

- Compliance with Safety Regulations**
- 706-Use of equipment in Planning and Controls**
- R1-Program Management & Support**

## Groundwater Management Project

- Operate the system in a safe manner at a cost of \$150,000.
  - KPIs:
    - Operational and financial performance
    - Customer satisfaction
    - Employee satisfaction
    - Compliance with regulatory requirements
    - Return on investment
  - Performance objectives:
    - Increase revenue by 10%
    - Reduce costs by 5%
    - Increase customer satisfaction by 15%
    - Increase employee satisfaction by 10%
    - Increase compliance with regulatory requirements by 10%
  - Commit to 24x7x24x365 availability with 99.99% uptime
  - Sampling plan
- Sample Phase III: A full-line integration of the new *Russell-Bernheim 200 S.F.* for the 3rd quarter of 2010.
  - Continue CVM/2 integrator activities
    - Optimization of system
    - System Assessment capability
    - Science and Technology
    - Management and Implementation



- Reactor ISS
- 200 Area Remedial Action
- Borehole Logging

# SURVEILLANCE/MAINTENANCE AND TRANSITION PROJECTS

- ◆ The completion of the cell drain header characterization and sludge sampling effort at the U Plant received headline news coverage. Hazard experts will use crucial data gained from the cell drain header characterization and cell floor concrete coring to establish the basis for final disposition of five defunct chemical processing plants at the Hanford Site.
- ◆ The crane hook recertification was completed in December for the U Plant (221-U Building) canyon crane.
- ◆ Nondestructive evaluation of the crane drum in the canyon was completed in February.

## KE/KW/D/H Reactors

- ◆ The Waste Management Plan was completed for the removal of legacy waste from the KE and KW Reactors.
- ◆ Completed removal of legacy waste from the KE Reactor. Five ERDF containers were loaded and shipped to the ERDF.
- ◆ Completed removal of legacy waste from the KW Reactor. A total of 370 fuel baskets were packaged and shipped to the ERDF. In addition to the fuel baskets, a total of four ERDF containers were loaded and shipped to the ERDF.
- ◆ Completed removal of legacy waste from the H Reactor area.
- ◆ Completed annual surveillance and housekeeping activities at the H, D, KE, and KW Reactors.
- ◆ Completed sample collection and stabilization of the KE/KW acid tanks.
- ◆ Submitted the 100 D and 100 H Waste Management Plan to Ecology.

## Long-Term S&M

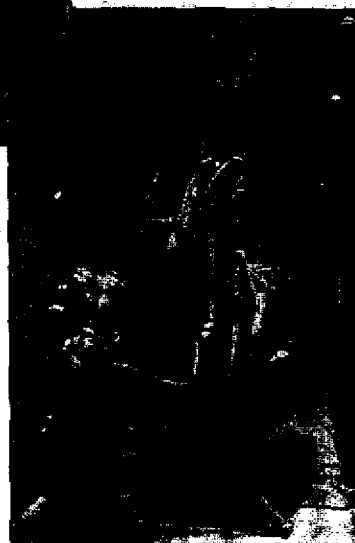
- ◆ Completed a five-year review of the Arid Lands Ecology Reserve (ALE) and the North Slope with the EPA.

## B Reactor

- ◆ A TPA change request was approved on November 16 stating an interim milestone will be established for S&M plan submittal based on the schedule that will be negotiated in the action memorandum.



The robotic inspection vehicle that was used for CDI drain characterization.



The Brokk concrete coring machine in the 221-U canyon prior to being lowered into a process cell.



A radiological control technician performing a dose rate survey on CDI cell materials.



A D&D worker starting to remove legacy waste from a rack storage area.



Cutting the 183-KE-KW acid tank, from the manlift.

# PROGRAM MANAGEMENT & SUPPORT - ERC

## Major Accomplishments

### Project Technical Support

#### Design Engineering

- ◆ The Opportunity Assessment Report for Waste Minimization/Pollution Prevention was issued. The report documented a value engineering study that identified FY00 waste reduction opportunities that could result in estimated lifecycle cost avoidances of \$10.0M.
- ◆ Completed five self-assessments of engineering department implementing procedures. Issued BHI-01364, Bechtel Hanford, Inc. Criticality Safety Program. Worked with the Compliance & Quality Program (CQP) group to complete a self-assessment of the Nuclear Criticality Program, in response to a request from the Deputy Secretary of Energy.
- ◆ Completed training of project engineers, along with Unresolved Safety Questions (USQs) and Management of Change (MOC) evaluators, on an interim process for performing MOC evaluations for facilities with a classification of less than nuclear. ERC staff is participating with the DOE working group to complete details of the revisions to the DOE guidance on the MOC process.
- ◆ Procured and deployed the System Level Automation Tools for Engineers (SLATE). Initiated activities to coordinate the use of SLATE with FH. The ERC is working with FH to standardize database schema and share specialty processes that enhance our ability to share information.

#### Technology Applications

- ◆ In FY00, BHI was committed to deploy four technologies. BHI exceeded the plan by actually deploying the following nine technologies: the Small Diameter Geophysical Logging System, Overlook Camera System, Liquid-Level Detection Technology (ultrasonic), Passive Soil Vapor Extraction System, Overview Video System, Wireline CPT System, Drainline Robot Characterization, Remote Concrete Coring System, and 3D visual and Gamma Ray Imaging System.

- ◆ BHI prepared, assembled, and shipped posters and handouts for a "Strength Through Science" presentation by RL at the EM-50 Capitol Hill exhibit.
- ◆ Submitted the F Reactor Fuel Storage Basin Cleanout Accelerated Site Technology Deployment (ASTD) proposal, requesting \$750K in EM-50 funds.
- ◆ The ERC was assigned responsibility by the Subsurface Contaminants Focus Area (SCFA) to coordinate all DOE lead laboratory activities at those DOE sites managed by Bechtel.
- ◆ Supported SCFA lead laboratories at four other Bechtel sites, including interfaces with projects at these sites to educate them about SCFA and the availability of lead laboratory resources.
- ◆ Supported the EM-50 Core Team in developing implementation strategies for the 14 recommendations made to the EM-50 Assistant Secretary by the Core Team; participated in the gap analysis of the EM Research and Technology Portfolio; and provided input to the Core Team on a revised Return On Investment (ROI) method for documenting benefits from technology deployments.
- ◆ In response to a DOE request, estimates were provided for scrap and surplus contaminated metals to be generated until 2035. This estimate supports the feasibility of building a steel mill to recycle contaminated and recyclable metals that are generated by DOE.

#### Environmental Technologies

- ◆ Supported issuance of the FY99 Waste Minimization Annual Report, highlighting waste minimization successes at the Hanford Site.
- ◆ Completed targets for the waste minimization performance incentive, including redeployment of the concrete crusher to Ohio, recycling absorbents, recycling the flat bed trailer and generator, and recycling 1,100 drum overpacks.
- ◆ Completed Waste Information Data System (WIDS) reclassification of 115 waste sites, which contributed to an estimated \$7.9M cost avoidance.
- ◆ Issued and implemented the Environmental Protection Program Procedure (BHI-EP-01) as part of the ERC effort to minimize adverse impacts on the environment and to improve Hanford Site environmental conditions.

- ◆ Issued and implemented an environmental management system (and procedures) to ensure that control systems are in place to protect the environment, including the Environmental Management Plan (BHI-MA-02, Procedure 9.2); Chemical Management Program (BHI-MA-02, Procedure 9.3); and Environmental Control Plans (BHI-MA-02, Procedure 9.4).
- ◆ Provided waste management awareness training to ERC senior management and key project staff.
- ◆ Implemented the chemical inventory database to track chemical inventories within the ER Project.
- ◆ Issued the Environmental Radiological Measurements Plan, which describes the processes and requirements for radiological measurements used for making environmental restoration and remediation decisions.
- ◆ Streamlined the site closure process by using electronic templates and process improvements.
- ◆ Completed five self-assessments of the environmental management system and implementing procedures.
- ◆ Provided ERC data quality objectives and managing uncertainty information to other DOE sites and government agencies through the DOE National Analytical Management Program.



Discussing items for the Monthly Progress Report.

# PROGRAM MANAGEMENT & SUPPORT - ERC

- ◆ Radiological Controls revised the ERC Radiation Protection Program (RPP) to address modifications to 10 CFR 835 (Occupational Radiation Protection). DOE approved the revised plan in February, and achieved implementation by July. An important element of the revised RPP is DOE's concurrence that an internal ERC document should be developed to capture all radiation protection standards, thus consolidating requirements from a number of sources into one requirements manual.
- ◆ The ERC Radiological Controls group teamed with FH to update and provide ERC-specific material for inclusion in revised radiological worker training.
- ◆ To complete action on Corrective Action Request (CAR) 99-RC-06 (Radioactive Sealed Sources), an initiative to reduce the inventory of overall sources by 66% was completed. More than 280 unnecessary sources, which were formerly part of the program, were disposed. This initiative significantly reduces the administrative burden of source accountability and program compliance.
- ◆ The Radiological Controls groups supported a DOE complex-wide initiative that investigated potential failures of pressurized fittings in gloveboxes and other systems. This investigation found no affected system inside ERC control.
- ◆ In July, the new radiological control manual was issued. More than 100 procedures were updated or verified to comply with the revised 10 CFR 835 regulation.
- ◆ Emergency reposting of the 100 B/C Area controlled area and the 200 Area 216-S ditch was accomplished within a week of the Hanford Site range fire. More than 250 ERC signs were damaged by the fire.

## Compliance and Quality Programs

- ◆ In June, a Resource Conservation and Recovery Act of 1976 (RCRA) inspection was conducted in the 100 Area, as required by the Hanford Site RCRA permit. No reportable items were noted.
- ◆ A surveillance was performed at the 271-U and 1330-N 90-Day Hazardous Waste Storage Pads, and at two satellite accumulation areas at the REDOX facility. The surveillance inspections were performed to review waste management practices for compliance with regulatory and procedural requirements. The surveillance resulted in 10 observations.
- ◆ Compliance and Quality Programs participated in the annual 200 West Area inspection by site contractors and Ecology in March. The inspection is a requirement of the site-wide RCRA permit. No concerns or violations were noted as a result of the inspection.
- ◆ The annual update of BHI-QA-01, the ERC quality program manual, was completed and submitted to RL for review, as required by DOE Order 5700.6C and 10 CFR 830.120.
- ◆ Support was provided for the joint RL/contractor team "Assessment of the Hanford Site Startup Readiness Verification Process." The assessment team evaluated compliance by RL and the Office of River Protection (ORP), and their contractors, with DOE Order 5480.31, Startup and Restart of Nuclear Facilities, DOE 425.1, Startup and Restart of Nuclear Facilities, and DOE-STD-3006-95, Planning and Conduct of Operational Readiness Reviews.
- ◆ The first independent integrated assessment report was issued. The assessment evaluated the SM&T Project for hazard identification and analysis. The team was composed of personnel from Radiological Health, Nuclear Safety, Field Support, Regulatory Support (Environmental), and Compliance and Quality Programs (Industrial Safety and Health).
- ◆ A surveillance on "Potential Exposure to Airborne Radioactivity at 105-B Transfer Bay Corrective Actions" was performed, at the request of the manager of SM&T Projects. The surveillance resulted in six recommendations that are being addressed by project and functional groups.
- ◆ An independent assessment was conducted for the ERC Criticality Safety Program, at the request of RL. The team determined that no imminent nuclear criticality safety hazards exist for the areas assessed. One corrective action request (CAR) and 13 observations were identified.
- ◆ An independent assessment of the corrective action plan, which was submitted to EPA and Ecology in response to the Notice of Violation (NOV) concerning management of Investigation Derived Waste (IDW),

was completed. BHI management directed CQP to conduct an independent assessment to verify that commitments made in the response letter have been addressed, implemented, and that they are effective. Field work was completed in March, and the final report was issued on May 24, 2000. One CAR and 14 observations were identified.

- ◆ A new ERC-Corrective Action Tracking System (CATS) trend chart was developed, including such elements as lock and tag, procedure violations, management problems, spills reported on occurrence reports, and procedure problems.
- ◆ 56 environmental compliance assessments/surveillance/audits were completed. The scope was expanded on several of the environmental assessments, which required considerably more time and resources than previously planned.



Reviewing ISMS discussion topics.

**ISSUES**

## CURRENT ER PROJECT ISSUES

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### REMEDIAL ACTION AND WASTE DISPOSAL PROJECT

- **M-16-26B:** M-16-26B, "Complete Remediation, Backfill, and Revegetation of 51 Liquid Waste Sites and Process Effluent Pipelines in the 100 B/C, DR, and HR Operable Units" due February 28, 2001, will be missed due to lack of funding in FY99 and FY00 for 100 B/C pipeline remediation activities.

**Strategy/Status:** Bid proposals were received on September 29 for the 100 B/C pipeline remediation, and contract was awarded on November 28. A TPA change request was forwarded to the regulators on October 19 proposing a new milestone date be established by January 31, 2001 after the subcontract had been awarded and a schedule developed.

- **M-16-26C:** M-16-26C, "Complete Remediation and Backfill of 10 Liquid Waste Sites and Process Effluent Pipelines in the 100-HR-1 Operable Unit", due May 31, 2001, will be missed due to unanticipated elevated arsenic levels found early in FY00 (resolved) and chromium sample analysis results above the remedial action goals encountered during confirmation sampling/verification activities.

**Strategy/Status:** When the impact of the elevated chromium results is evaluated, a TPA change package will be prepared.

- **M-16-03E:** M-16-03E, "Complete Remediation of Waste Sites in 300-FF-1 Operable Unit (excluding the 618-4 Burial Ground), to Include Excavation, Verification, and Backfilling", due 9/30/2001 will be missed due to the EPA requirement of performing a Kd study on uranium leachability. The regrades will not be completed until study results confirm that no further excavations will be required.

**Strategy/Status:** EPA requires a Kd study to address uranium mobility in the 300 Area. This study will consist of obtaining uranium-contaminated samples and performing leach rates with follow-on absorption tests resulting in a Kd value. A data quality objective (DQO) was completed, and a baseline change proposal prepared to secure funding for the study.

### GROUNDWATER/ADOSE ZONE INTEGRATION PROJECT

- **Monitoring Wells:** Tritium investigation is being conducted near the 618-11 Burial Ground.

**Strategy/Status:** The groundwater grab results from the boreholes drilled for the 618-11 soil gas investigation have been evaluated. The groundwater grabs from boreholes C3264 and C3265 were to assess tritium levels in the groundwater and assist in the determination of a correlation between groundwater concentrations and the measured helium ratios.

As previously reported, borehole C3264 (about midway along the northern boundary of the 618-11 Burial Ground) was completed to groundwater, and a groundwater grab sample was collected on October 9. The initial results from the C3264 groundwater grab indicated tritium levels less than 30,000 pCi/liter. A split sample taken by the Department of Health gives the result of about 6,000 pCi/liter. The detection limits were much lower at laboratory used by the Department of Health.



## CURRENT ER PROJECT ISSUES

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**Strategy/Status:** RL will work with the regulators to establish revised interim M-13 and M-20 milestones based on the improved approach to 200 Area assessment which supports the Hanford site outcomes. It is anticipated that M-13-00x major milestone adjustments can be addressed with the regulators once the revised FY02 DOE budget is approved in the Spring of FY01.

## DECOMMISSIONING PROJECTS

- **D and H Reactor Impacts of TPA Milestones:** The acceleration of the reactor ISS projects is no longer consistent with the current M-93 milestones, especially the competitive procurement and renegotiating milestone (M-93-12) for DR Reactor.

**Strategy/Status:** Initial discussions with the regulators have started which may lead to resolution in the near future. This will need to be discussed as part of RL's 100 Area acceleration vision.

## PROGRAM MANAGEMENT AND SUPPORT

- **Budgets Do Not Support Compliance Milestones:** FY01 and FY02 ER funding (target) levels are below minimum compliance requirements. The updated FY01 President's budget assumes the ER Project funding target at \$141.9M. While this funding level is adequate for a number of significant activities supporting site cleanup goals, it falls far short of maintaining compliance with the Tri-Party Agreement and other regulatory commitments in support of TPA Milestone M-16-00, which is due September 30, 2018. The recently submitted budget for FY02 targets the ER Project at \$140.8M, which is again significantly short of supporting minimum compliance requirements for FY02 and beyond.

**Strategy/Status:** Impacts have been developed that are associated with directed funding targets for FY01/FY02 and beyond. Support has also been provided for DOE budget submittals and presentations, including discussions with regulators on projected future shortfalls and prioritization of allocated funding. The ER Project FY01-FY03 DWP, which was approved on September 26, reflects FY01 scope at the target funding of \$141.9M. Additional authorization funding requirements for 200 Area remedial actions, reactor ISS, and support from the Grand Junction borehole logging program were identified and are required to meet schedule, commitment, and work continuation needs (a total of \$13.3M). These additional funds will be required to support compliance with 200 Area TPA milestones and to continue ISS activities in FY01. Recent guidance from DOE directs that the 200 Area remedial action, reactor ISS, and support to the Ground Junction borehole logging program efforts continue, with additional funding provided by RL, along with delayed/deferred other ER scope (\$4.5M reduction) to support a funding target of \$150.7M for FY01. The delayed/deferred scope adjustments are not anticipated to impact FY01 or FY02 TPA milestone commitments.

# **M-19-00 & M-91-00**

**WASTE MANAGEMENT DIVISION**

**Sen Moy and Russ Warren**

**December 2000**

TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	DECEMBER 2000
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## MILESTONE DESCRIPTION

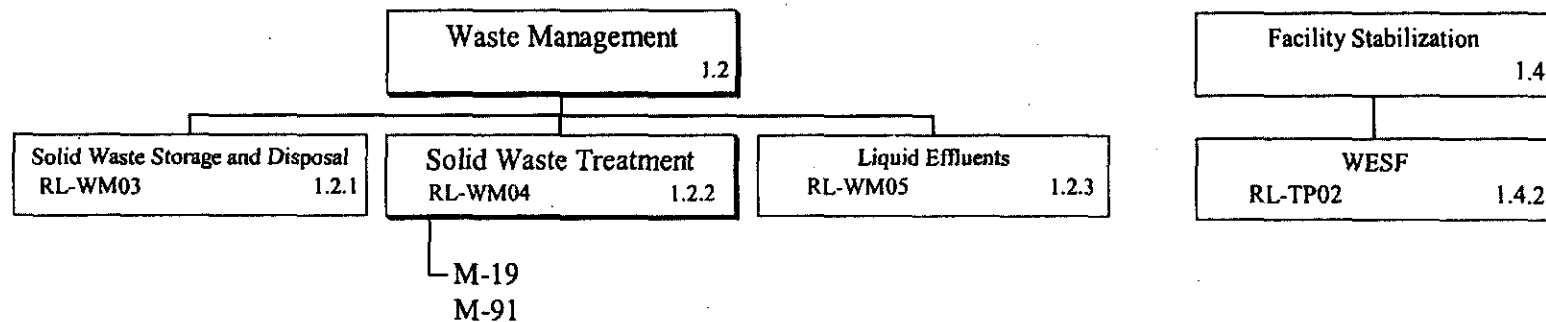
TPA MILESTONE	DESCRIPTION
M-19-00	<p>Complete treatment and/or direct disposal of at least 1,644 cubic meters of contact handled low level mixed waste already in storage as of October 1, 1995, as well as newly generated Hanford Site low level mixed waste.</p> <p>Cumulative treatment and/or direct disposal rates will be at least 246 cubic meters by the end of FY 2000, 822 cubic meters by the end of FY 2001, and 1,644 cubic meters by the end of FY 2002.</p>
M-91-00	<p>Complete the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing, and disposal of all Hanford site TRU/TRUM, LLMW, and GTC3.</p>

TPA MILESTONE  
REVIEW

## WASTE MANAGEMENT PROJECT

DECEMBER 2000

# WORK BREAKDOWN STRUCTURE



TPA MILESTONE  
REVIEW

WASTE MANAGEMENT PROJECT

DECEMBER 2000

MILESTONE SCHEDULE

WBS (ADS)	BASELINE DATE	FISCAL YEAR 2001												Status
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.2.2 (RL-WM04) Solid Waste Treatment	12/31/00				⬡ I	(M-91-01) Commitment to establish a date for: "Complete acquisition of TRU/TRUM Facilities"								Change Request prepared – currently in dispute resolution; due to be resolved by January 23, 2001.
	12/31/00				⬡ I	(M-91-11-T01) Submit LLMW Engineering Study/FDC.								Deleted via change request
	12/31/00				⬡ I	(M-91-12) Initiate Thermal Treatment of LLMW.								On Schedule.
	6/29/01					(M-91-18) Transmit T Plant Sludge Storage CDD to Ecology.					⬡ I			On Schedule.
	6/30/01					(M-91-13) Initiate Disposal of LLMW.					⬢ I			Trench 34 in Disposal Mode September 15, 1999.
	9/30/01									(M-19-00) Cumulative Treatment Rate 822 cubic meters				Currently at 1,654 cubic meters (see Scorecard).
MILESTONE TYPES:		⬡ M	TPA MILESTONE		⬢	DOE-HQ		⬡	FORECAST					
		⬡ I	TPA INTERIM		⬢	DOE-RL		⬡	Treatment Rate					



TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	DECEMBER 2000
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## MILESTONE EXCEPTION REPORT

TPA MILESTONE	FUTURE MILESTONES IN JEOPARDY
M-91-07	"Complete Project W-113 for Post 1970 CH TRU/TRUM retrieval" by September 2004.
	CHANGE REQUESTS IN PROGRESS
M-91-01	Commitment to establish a date for: "Complete acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, and treatment/processing prior to disposal of all Hanford Site post-1970 TRU/TRUM."

TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	DECEMBER 2000
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## M-19 ACCOMPLISHMENTS

WBS 1.2.2.3	<p>M-19-00</p> <p><u>LOW LEVEL MIXED WASTE TREATMENT</u></p> <p>M-19 was completed in Fiscal Year 2000. This is the final status report on M-19-00</p>
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TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	DECEMBER 2000
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## M-19-00 SCORECARD

“Treat and/or directly dispose of at least 246 cubic meters of CH-LLMW by September 2000, 822 cubic meters by September 2001, and 1,644 by September 2002”	<u>Quantity in cubic meters</u>
– ATG Macroencapsulation (as of 9/25/00)	1179
– ETF Powders Disposal (2000)	78
– T Plant Mixed Waste Box (2000)	25
– Macroencapsulation Pilot (1997)	183
– Long Length Equipment (1996/1997)	95
– Backlog Soils Disposal (1997/1999)	79
– B Plant TBP Organic Liquid (1998)	11
– Mixed Waste from PNNL (1998)	2
– Lead Decontamination Project (1998)	1
– WT02/WP02 State-Only Waste (1999)	1
<b>TOTAL M-19 WASTE</b>	<b>1,654</b>

TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	DECEMBER 2000
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## M-91 ACCOMPLISHMENTS

WBS 1.2.2.3	<p>M-91 <u>LLMW and TRU Waste Facilities</u></p> <p>Have formulated draft Waste Management Program strategic plan logic diagrams.</p> <p>Shipped 16.64 m<sup>3</sup> of waste in preparation for thermal treatment to ATG.</p>
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TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	DECEMBER 2000
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## PLANNED ACTIONS

TPA MILESTONE SUPPORTED	DESCRIPTION	SCHEDULED COMPLETION DATE
M-91-12	Initiate Thermal Treatment of MLLW Trial burns scheduled the week of December	12/31/2000
M-91-12	Treat 250 m <sup>3</sup> of MLLW in FY2001 using the thermal treatment contract with ATG. <ul style="list-style-type: none"> <li>Scorecard for M-91-12 initiated</li> </ul>	9/30/2001
M-91-07	Authorized the initiation of the Solid Waste Burial Ground Interim Safety Basis, continue work on the SARP, supporting TRU retrieval, and complete container movements for the containers processed during FY 00.	9/30/2004

TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	DECEMBER 2000
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## PLANNED ACTIONS (continued)

TPA MILESTONE SUPPORTED	DESCRIPTION	SCHEDULED COMPLETION DATE
M-91-18	Transmit T Plant Sludge Storage CDD to Ecology	6/29/2001

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## M-91-12 SCORECARD

"Initiate thermal treatment of currently stored and newly generated CH LLMW. At least 600 cubic meters will be provided for treatment by December 2005."	<u>Quantity in cubic meters</u>
– WERF Incineration (2000)	20
<b>TOTAL M-91-12 WASTE</b>	<b>20</b>

TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	DECEMBER 2000
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## M-91 ISSUES

TPA MILESTONE	DATE IDENT	ISSUE	IMPACT	STATUS
M-91-07	6/99	Milestone cannot be accomplished as written due to funding limitations.	Replacement milestone will need to be renegotiated.	Replacement milestone will be based on funding profile.

TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	DECEMBER 2000
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## EXPENSE COST PERFORMANCE

(\$ in Millions)

WBS	FY 2001 TO DATE (Nov)					AT COMPLETION				COMMENTS
	BUDGETED COST		ACTUAL CST	VARIANCE		BAC	FYSF	EXPECTED FUNDS FY 2001	PROJECTED CARRYOVER WORK	
	WORK SCHED	WORK PERF	WORK PERF	SCHED	COST	BCWS				
1.2.2.3 M-19 AND M-91 TREATMENT	0.2	0.2	1.0	0.0	0.1	4.8	5.7	5.7	0	Carryover Change Request: TRU Retrieval \$417K ATG Box Returns \$75K Charact. \$441K

TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	DECEMBER 2000
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## EXPENSE COST VARIANCE ANALYSIS

WBS	COST VARIANCE \$121K	
1.2.2.3	(Description and Cause:) <ul style="list-style-type: none"> <li>• Billings for shipments occurring late in November have not yet been received.</li> </ul>	(Impacts and Corrective Action:) <ul style="list-style-type: none"> <li>• No impact. Costs should be received in December.</li> </ul>



TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	DECEMBER 2000
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## EXPENSE SCHEDULE VARIANCE ANALYSIS

WBS	SCHEDULE VARIANCE \$0.3K	
1.2.2.3	(Description and Cause:) <ul style="list-style-type: none"> <li>• None</li> </ul>	(Impacts and Corrective Action:) <ul style="list-style-type: none"> <li>• No impacts.</li> </ul>